WE CLAIM:

Sub B1

1. A method for transforming a plant comprising the steps of:

(a) contacting the meristematic tissue of the plant with a medium comprising DNA;

(b) contacting an area of the plant below the meristematic tissue of step a) with a positive lead of a power source;

(c) contacting the medium comprising DNA with a negative lead of the power source; and

(d) applying a low amperage current from the power source, thereby causing the DNA to migrate from the medium to the cells of the meristematic tissue of the plant.

2. The method of Claim 1, wherein the plant is a dicot.

3. The method of Claim 2, wherein the plant is a soybean plant.

4. The method of Claim 1, wherein the plant is a monocot.

5. The method of Claim 1, wherein the plant is a seedling.

6. The method of Claim 1, wherein the DNA is a plasmid vector.

7. The method of Claim 6, wherein the plasmid vector is linearized.

8. The method of Claim 6, wherein the plasmid contains the gene for barley oxalic acid oxidase.

9. The method of Claim 1, wherein the current is about 0.01 to about 1.0 mA.

10. The method of Claim 1, wherein the current is about 0.1 to about 0.5 mA.

11. The method of Claim 1, wherein the meristematic tissue is an apical meristem.

12. The method of Claim 1, wherein the meristematic tissue is a lateral meristem.

13. The method of Claim 1, wherein the meristematic tissue is a meristematic dome.

14. The method of Claim 1, wherein the area of the plant below the meristematic tissue is a root.

15. The method of Claim 1, wherein the area of the plant below the meristematic tissue is a stem.

16. A transgenic plant produced by the method of Claim 1.

Add B2